

Work Order ID 129721

129721

Page 1

February-23-15 10:18:01 AM

Item ID: D2891-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Support 2.25
 Start Date: 2/23/15 Start Qty: 10.00 ***10*** Cust Item ID:
 Required Date: 2/23/15 Req'd Qty: 10.00 ***10*** Customer:
 Reference:

Approvals: Process Plan: MJS Date: 15-02-24 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2891	B

100	HAAS CNC VERTICAL MACHINING #1	0.00				10	0		
100									
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	1-Machine as per Folio FA046 2-Deburr								

110	QC2- Inspect parts off machine FAI/FAIB	0.00				10	0		
110									
QC	Memo	0.00							
Quality Control									

120	QC8- Inspect parts - second check	0.00				10	0		
120									
QC	Memo	0.00							
Quality Control									

DAS
08
9-89

15/03/04

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Page 2

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130									
HandFXtube	Memo	0.00							
Hand Finishing Crosstubes	Per note 8 on page 1 of dwg D2891, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg. 24H of cure time.								
140	QC3- Inspect Part Finish	0.00							
140									
QC	Memo	0.00							
Quality Control									
170	Identify as per dwg & Stock Location:	0.00							
170									
Packaging	Memo	0.00							
Packaging									

10 15-03-05
 (10) 38 9-89
 MAR 05 2015
 27 9-89
 MAR 06 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
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Picklist Print

February-23-15 10:18:00 AM

Page 1

Work Order ID: 129721

129721

Parent Item: D2891-1

D2891-1

Parent Item Name: Support 2.25

Start Date: 2/23/15

Required Date: 2/23/15

Start Qty: 10.00

Required Qty: 10.00

Comments:

IPP C02.11.26Added P/OKJ

IPP D 08.03.19 Re-format EC verified: DD

IPP Rev:E

11.08.04 as per dwg rev.B DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK076		Manufactured	No			110	Each	17.0000	0.5	5			

DSK076

**

D2891-1 Turning Detail

Location

Loc Qty

Loc Code

MAT060

17

113931

1

116005

5

116430

1

119736

10

5 JFC 2015-02-26

DQA: _____ Date: _____

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DART AEROSPACE LTD		Work Order: 129721
Description: Ø2.250 Support		Part Number: D2891-1
Inspection Dwg: D2891	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.188	0.193		.189	.189	.189	.149	.149
AB	0.240	0.260		.250	.250	.250	.250	.250
AC	0.115	0.150		.125	.125	.125	.125	.125
AD	0.040	0.060		.046	.048	.049	.049	.048
AE	0.010	0.020		.015	.015	.015	.015	.015
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.310	.310	.310	.310	.310
AH	0.115	0.150		.137	.136	.138	.138	.136
AI	0.454	0.474		.466	.467	.469	.467	.467
AJ	2.779	2.789		2.783	2.783	2.783	2.783	2.783
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.036	1.036	1.034	1.036	1.036
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.257	.257	.257	.257	.257
AO	1.663	1.683		1.675	1.677	1.676	1.677	1.676
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: 15-03-02	Date: 2015-03-03
Audited by: DAS 08 9-89	Date: 15/03/04
Preliminary Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.09.26	Dwg Rev updated	KJ	

DART AEROSPACE LTD		Work Order: 129721
Description: Ø2.250 Support		Part Number: D2891-1
Inspection Dwg: D2891	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

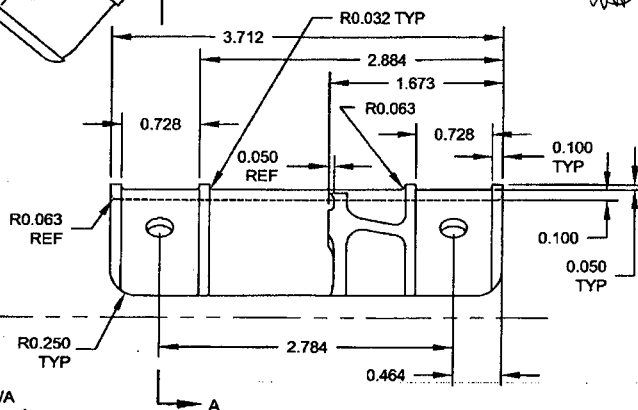
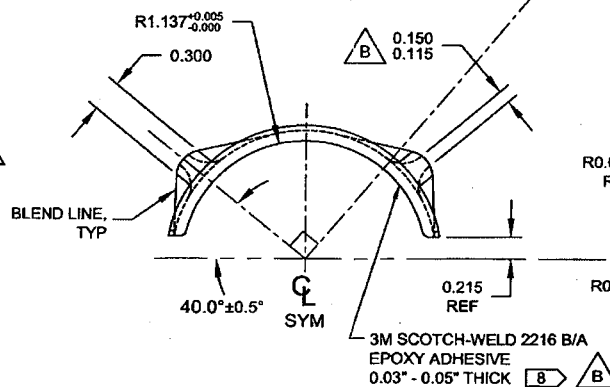
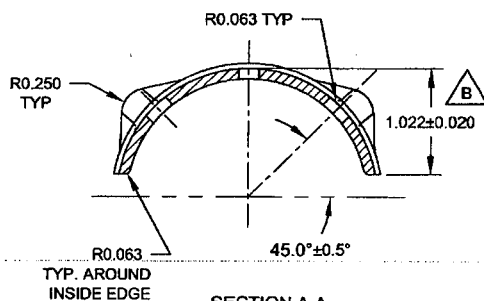
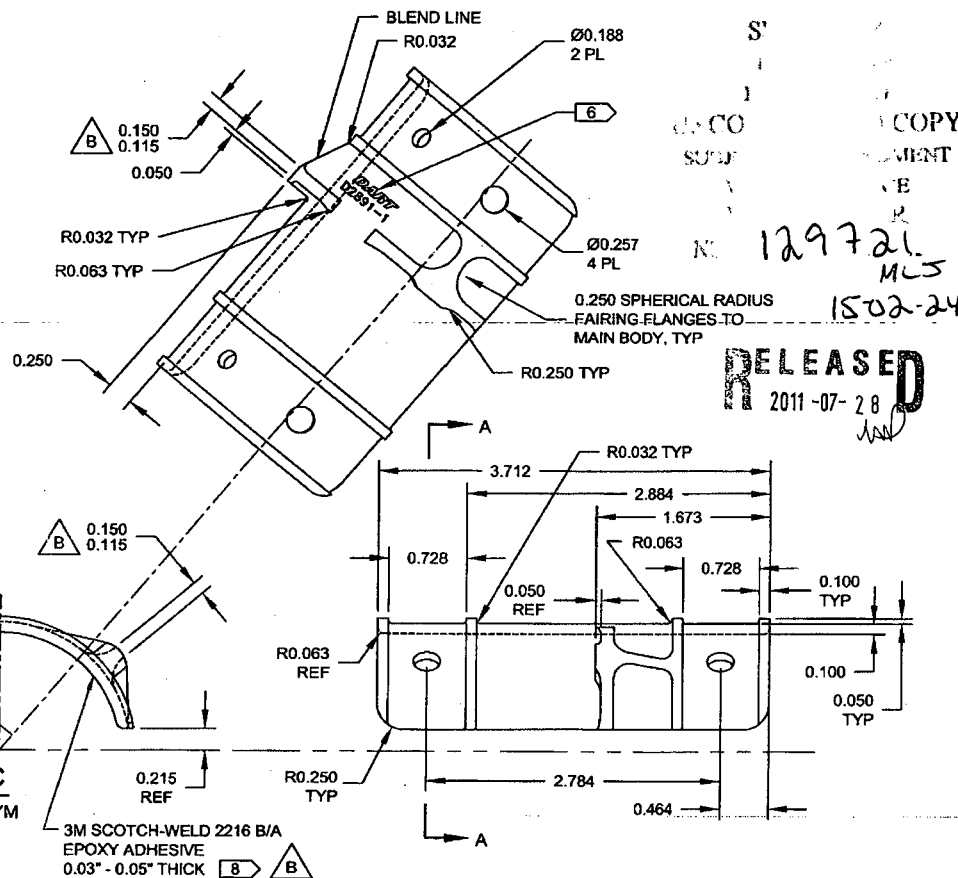
				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	#16	#17	#18	#19	#10
HAAS Section								
AA	0.188	0.193		.189	0.190	0.190	0.190	0.190
AB	0.240	0.260		.250	0.250	0.250	0.250	0.250
AC	0.115	0.150		.125	0.123	0.123	0.125	0.125
AD	0.040	0.060		.049	0.047	0.047	0.048	0.050
AE	0.010	0.020		.015	0.015	0.015	0.015	0.015
AF	0.240	0.260		.250	0.250	0.250	0.250	0.250
AG	0.290	0.310		.310	0.300	0.300	0.300	0.300
AH	0.115	0.150		.138	0.138	0.138	0.137	0.137
AI	0.454	0.474		.467	0.462	0.464	0.464	0.462
AJ	2.779	2.789		2.782	2.782	2.782	2.782	2.782
AK	0.240	0.260		.250	0.250	0.250	0.250	0.250
AL	1.002	1.042		1.036	1.038	1.032	1.036	1.033
AM	0.053	0.073		.063	0.063	0.063	0.063	0.063
AN	0.257	0.262		.257	0.258	0.258	0.258	0.258
AO	1.663	1.683		1.677	1.673	1.678	1.679	1.675
AP	0.053	0.073		.063	0.063	0.063	0.063	0.063
AQ	0.022	0.042		.032	0.032	0.032	0.032	0.032
AR								
AS								
AT								
Accept/Reject								

Measured by: <i>15-03-02 JFC</i> 2015-03-03	Date: 2015-03-03
Audited by: <i>[Signature]</i> DAS 08 9-89	Date: 15/02/09
Preliminary Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.09.26	Dwg Rev updated	KJ	<i>[Signature]</i>

NOTES:

- 1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION
MIN UTS = 170 KSI (38 HRC)
(REF DART SPEC. D6104)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 (REF X.XXX = ± 0.010) UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: DART LOGO (PER DART SUPPLIED GRAPHIC) AND PART NUMBER IN THIS AREA WITH 0.125 HIGH LETTERING
0.010-0.020 DEEP, PER DART QSI 044 6.3.
- 7) WEIGHT: 0.38 lb
- 8) FOR THE ENTIRE INNER CONCAVE SURFACE:
ABRADE SURFACE WITH 400-GRIT SANDPAPER. REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY 0.03" TO 0.05" THICK LAYER OF 3M SCOTCH-WELD 2216 B/A (OR EQUIVALENT). ALLOW TO CURE FOR 24 HOURS.



D2891-1 SUPPORT

B	RMV FINISH, ADD 3M 2216, ADD H925 MATT. OPTION, UPDATE TOLERANCE (ZN D4-1, B6-1)	CP	11.07.15
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.07.15		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D2891	REV. B SHEET 1 OF 1
TITLE Ø2.250 SUPPORT	SCALE NTS
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